

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A Mmethod to have of a real time data communication between a first user (~~U1~~) of a source (~~S~~) and a second user (~~U2~~) of a destination (~~DT~~) via at least partly via a real time data transport protocol over Internet Protocol communication network, said method ~~comprises~~ comprising:

transmitting by a ~~transmitting means (TR)~~ of said source (~~S~~) at least two packets (~~T1, T2, T3, T4~~) to said destination (~~D~~); and

determining by a ~~receiving means (REC)~~ of said destination (~~D~~) for each one (~~T2~~) of said at least two packets (~~T1, T2, T3, T4~~), time information (~~T2_t2~~) related to a receiving time (~~t2~~) of said packet (~~T2~~), ~~characterized in that~~

wherein said method further comprises:

applying by said ~~transmitting means (TR)~~ source, for each one (~~T2~~) of said at least two packets, (~~T1, T2, T3, T4~~) a predefined packet length (~~l2~~) out of a plurality of packet lengths (~~l1, l2, ..., li~~) ~~in order to be transmitted according to said transmitting step;~~
and

determining ~~by a first determining means (DET1), according to each said time information (T1_t1, T2_t2, T3_t3, T4_t4) associated to said at least two packets (T1, T2,~~

~~T3, T4) of said receiving means (REC), and according to each said predefined packet length (l1, l2, l3, l4) associated to said at least two packets, characteristics of a first relation ($f_1(T, \alpha)$) between a packet length of a packet to be transmitted from said source (S) to said destination (D) and a source to destination delay (~~d-S2D~~) being which is a time period between said transmission of said packet by said source (S) and reception of said packet by said destination (D); and~~

~~determining by a second determining means (DET2) a preferred mouth to ear delay (~~d-M2E-pref~~) according to a preferred quality rating (~~Q-pref~~) for said real time data communication; and~~

~~determining by a third determining means (DET3) an optimal packet length (~~l-opt~~) for said preferred mouth to ear delay (~~d-M2E-pref~~) and according to said characteristics of said first relation ($f_1(T, \alpha)$) in order to be applied by said source (S) for packets being transmitted during said real time data communication.~~

2. (Currently Amended) The method according to claim 1, ~~characterized in that~~ wherein said step of determining by ~~said third determining means (DET3) said optimal packet length~~ further comprises determining said optimal packet length (~~l-opt~~) also according to characteristics of a second function $f_2(T_{enc}, R_{dec})$, said characteristics of said second function $f_2(T_{enc}, R_{dec})$ being determined ~~and provided by a fourth determining means (DET4)~~ according to a relation between a packet length and an intrinsic source (S) delay.

3. (Currently Amended) The method according to claim 1, ~~characterized in that~~wherein said characteristics of said first relation are determined by a first determining means and said optimal packet length is determined by a third determining means, and wherein said method further comprises a step of providing said characteristics of said first relation ($f_1(T, \alpha)$) from said first determining means (~~DET1~~) to said third determining means (~~DET3~~) by using reports of a real time transport protocol (~~RTP~~) control protocol (~~RTCP~~).

4. (Currently Amended) The method according to claim 1, ~~characterized in by~~further comprising the steps of tuning said preferred quality rating during said real time data communication, repeating said steps of said method and determining thereby ~~according to said step of determining by a third determining means an optimal packet length~~, an adapted optimal packet length (l_{opt}') ~~in order to be applied by said source for packets being transmitted during a following part of said real time data communication.~~

5. (Currently Amended) A S~~source (S)~~ for use by a first user (~~U1~~) to ~~have a communication via~~communicate at least partly via a real time data transport protocol over Internet Protocol communication network (~~IP~~) with a second user (~~U2~~) of a destination (~~D~~) ~~coupled to said source (S)~~, said source ~~comprises~~comprising a ~~transmitting means (TR)~~ to ~~transmit~~transmitter which transmits at least two packets (T_1, T_2, T_3, T_4) to said destination (~~D~~) in order to enable a ~~receiving means (REC)~~ receiver at said destination (~~D~~) to determine, for

each one (T2) of said at least two packets (T1, T2, T3, T4), time information (T2_t2) related to a receiving time (t2) of said each one packet (T2), ~~characterized in that~~ wherein

~~said transmitting means (TR) is enabled to apply~~ transmitter uses for each one (T2) of said at least two packet (T1, T2, T3, T4) a predefined packet length (l2) out of a plurality of packet lengths (l1, l2, ..., li) in order to be transmitted accordingly, and that

said source (S) further comprises a first interface (IN1) to interface with a third ~~determining means (DET3) and to receive~~ is responsive to an optimal packet length input to apply an optimal packet length (l-opt) to be applied by said source (S) for packets being transmitted during said real time data communication, said optimal packet length (l-opt) being determined by ~~said third determining means (DET3) for~~ in accordance with a preferred mouth to ear delay ((d-M2E-pref) being provided by a second determining means (DET2) and according to in accordance with characteristics of a first relation (f1(T,α)) ~~being provided by a first determining means (DET1), said characteristics of said first relation (f1(T,α) which is a relation between a packet length of a packet to be transmitted from said source (S) to said destination (D) and a source to destination delay (d-S2D) being~~ which is a time period between said transmission of said packet by said source (S) and reception of said packet by said destination (D), said first relation being determined by ~~said first determining means (DET1)~~ according to time information (T1_t1, T2_t2, T3_t3, T4_t4) ~~being associated to~~ with each one of said at least two packets (T1, T2, T3, T4) and according to each said predefined packet length (l1, l2, l3, l4) ~~being associated to~~ with said at least two packets (T1, T2, T3, T4), said preferred mouth to ear delay (d-M2E-pref)

being determined by ~~said second determining means (DET2)~~ according to a preferred quality rating ~~(Q)~~ for said real time communication.

6. (Currently Amended) The source (S) according to claim 5, ~~characterized in that~~ ~~said source further comprises~~ comprising a third interface (IN3) to provide to a fourth ~~determining means (DET4)~~ source intrinsic information in order to enable ~~thereby said fourth determining means (DET4)~~ to determine ~~determination of~~ characteristics of a second function $f_2(T_{enc}, R_{cod})$ ~~being~~ which is a relation between a packet length and an intrinsic source (S) delay, and to provide said characteristics of said second function $f_2(T_{enc}, R_{cod})$ to ~~said third determining means (DET3)~~, and in order to enable ~~said third determining means (DET3)~~ to ~~determine~~ for use in determining said optimal packet length (l_{opt}) also according to said characteristics of said second function ~~($f_2(T_{enc}, R_{cod})$).~~

7. (Currently Amended) The source (S) according claim 5, ~~characterized in that~~ wherein said source (S) comprises ~~any one of said second determining means (DET2) and said third determining means (DET3)~~ means for determining at least one of said optimal packet length and said preferred mouth to ear delay.

8. (Currently Amended) The source (S) according to claim 6, ~~characterized in that~~ wherein said source (S) comprises ~~said fourth determining means (DET4)~~ means for determining said characteristics of said second function.

9. (Currently Amended) A destination (~~D~~) for use by a second user (~~U2~~) to ~~have a communication~~communicate via at least partly via a real time data transport protocol over Internet Protocol communication network (~~IP~~) with a first user (~~U1~~) of a source (~~S~~) ~~coupled to~~ said destination (~~D~~), said destination (~~D~~) ~~comprises receiving means (REC) to receive~~comprising a receiver which receives at least two packets (~~T1, T2, T3, T4~~) from said source (~~S~~) in order to determine for each one (~~T2~~) of said at least two packets (~~T1, T2, T3, T4~~) time information (~~T2_t2~~) related to a receiving time (~~t2~~) of said each one packet (~~T2~~), ~~characterized in that~~wherein:

for each one (~~T2~~) of said at least two packets (~~T1, T2, T3, T4~~) said source applies a predefined packet length (~~l2~~) out of a plurality of packet lengths (~~l1, l2, ..., li~~) ~~is applied by said source (S); and that~~

said ~~receiving means (REC)~~ receiver further comprises ~~an~~ a second interface (~~IN2~~) to provide to ~~a first determining means~~ said time information (~~T1_t1, T2_t2, T3_t3, T4_t4~~) in order to enable said ~~first determining means (DET1)~~ to ~~determine~~determination, according to each said time information (~~T1_t1, T2_t2, T3_t3, T4_t4~~) associated ~~to~~with said at least two packets (~~T1, T2, T3, T4~~), and according to each said predefined packet length (~~l1, l2, l3, l4~~) associated ~~to~~with said at least two packets (~~T1, T2, T3, T4~~), characteristics of a first relation (~~f1(T, α)~~) between a packet length of a packet to be transmitted from said source (~~S~~) to said destination (~~D~~) and a source to destination delay (~~d-S2D~~) ~~being~~which is a time period between said transmission of said packet by said source (~~S~~) and reception of said packet by said destination (~~D~~); and in order

to enable ~~a third determining means (DET3) to determine~~determination of an optimal packet length ~~(l_{opt})~~ for a preferred mouth to ear delay ~~($d_{M2E-pref}$)~~ according to said characteristics of said first relation ~~($f_1(T, \alpha)$)~~ and to enable thereby said source terminal to apply said optimal packet length ~~(l_{opt})~~ for transmission of packets of said real time data communication ~~(C)~~, said preferred mouth to ear delay ~~($d_{M2E-pref}$)~~ being determined by ~~a second determining means (DET2)~~ according to a preferred quality rating ~~(Q_{pref})~~ for said real time data communication.

10. (Currently Amended) The destination ~~(D)~~ according to claim 9, ~~characterized in that~~wherein said destination ~~(D)~~ further comprises ~~said first determining means (DET1) for determining said characteristics of said first relation.~~

11. (Currently Amended) A communication network ~~characterized in that~~wherein said network comprises a source ~~(S)~~ according to claim 5.

12. (Currently Amended) A communication network ~~characterized in that~~wherein said network comprises a destination ~~(D)~~ according to claim 9.